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# Treatment of gonorrhoea with single oral doses of ampicillin plus probenecid

## *II. Comparison of results in London and Wales*

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In Part I of this paper (Willcox, Woodcock, Latto, John, Redmond, Parker, Rees, and Cobbold, 1973), the results of treating 114 male patients with acute uncomplicated gonorrhoea with 2 g. ampicillin and 1 g. probenecid at a single session in and near London were compared with those obtained under similar conditions with single doses of 1·2 m.u. aqueous procaine penicillin.

This second paper provides a comparison with a similar series of 106 male patients treated in Wales during the same time period with the same dosage of ampicillin and probenecid.

### Material

Of the 114 patients treated in the London area, 101 were seen at St. Mary's Hospital and thirteen at King Edward VII Hospital, Windsor. Of the 106 patients treated in Wales, eighty were seen at the Mount Pleasant Hospital, Swansea, and 26 at the venereal diseases clinic at Port Talbot.

The material of the two groups (Table I) was very similar as regards age, habits of consorting with strangers, and complaint of dysuria. However, substantially greater proportions of the Swansea/Port Talbot group were married and had been born in the United Kingdom, and fewer admitted homosexual experience and previous venereal disease. The Welsh patients were less prompt in reporting to the clinic for treatment. The last difference may have been partly influenced by the relative availability of facilities.

### Case management

This has been described in more detail in the first paper. In all cases *Neisseria gonorrhoeae* were identified by urethral smear before treatment and in many instances by culture also. In the Swansea series gonococci were confirmed by culture in 75 of 102 cases (70·7 per cent. of the total). In both series the ampicillin and probenecid were given in one dose under supervision in the clinic.

TABLE I *Cases studied (all males)*

| *Series* | | *London/ Windsor* | *Swansea/ Port Talbot* |
|---|---|---|---|
| No. of cases | | 101/13 = 114 | 80/26 = 106 |
| Age (yrs) | Mean | 26·9 | 26·8 |
| | Range | 18–57 | 17–59 |
| Married | | 21 | 43 |
| Born in U.K. | No. | 55 | 97 |
| | Per cent. | 48·2 | 91·5 |
| Previous VD | | | |
| None | | 52 | 70 |
| Attacks of GC | | 99 | 60 |
| Attacks of NGU | | 21 | 12 |
| Attacks of syphilis | | 3 | 0 |
| Other | | 5 | 3 |
| Average number of previous attacks | | 1·1 | 0·7 |
| Percentage with no previous VD | | 45·6 | 66·0 |
| Duration of discharge (days) | | | |
| 1–3 | | 70 | 48 |
| 4–7 | | 29 | 39 |
| 8–14 | | 12 | 14 |
| More than 14 | | 3 | 4 |
| Unknown | | — | 1 |
| Percentage 1 to 3 days | | 61·4 | 45·3 |
| Complaint of dysuria | | 83 | 82 |
| Contracted from | | | |
| Male | Stranger | 8 | — |
| | Friend | 6 | 3 |
| Female | Stranger | 54 (prostitute 4) | 66 (prostitute 1) |
| | Friend | 44 | 33 |
| | Wife | 2 | 4 |
| Percentage male | | 12·3 | 2·8 |
| Percentage stranger | | 54·4 | 62·3 |

TABLE II *Results in London and Wales compared*

| *Duration of follow-up* | *London* | | | | | *Wales* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *No. followed* | *Results* | | | | *No. followed* | *Results* | | | |
| | | *Satis-factory* | *Non-gonococcal infection* | *Re-infection* | *Failures* | | *Satis-factory* | *Non-gonococcal urethritis* | *Re-infection* | *Failures* |
| 0 | 114 | — | — | — | — | 106 | — | — | — | — |
| 1–3 days | 94 | 5 | 4 | — | 3 | 91 | 6 | 1 | — | 1 |
| 4–7 days | 82 | 4 | 4 | — | 2 | 83 | 18 | 7 | — | 1 |
| 8–14 days | 72 | 7 | 8 | — | 1 | 57 | 9 | 2 | — | — |
| 15–21 days | 56 | 3 | 4 | — | 2 | 46 | 10 | 1 | — | — |
| 22–28 days | 47 | 3 | 4 | 3 | 1 | 35 | 3 | 1 | — | — |
| 1–2 mths | 36 | 3 | 2 | 7 | 1 | 31 | 10 | 1 | 2 | — |
| 2–3 mths | 23 | 1 | — | 1 | — | 18 | 4 | — | — | — |
| More than 3 mths | 21 | 13 | 5 | 3 | — | 14 | 11 | 1 | 2 | — |
| Total | 94 | 39 | 31 | 14 | 10 | 91 | 71 | 14 | 4 | 2 |

**Results obtained in the two series** (Table II)

LONDON/WINDSOR SERIES

Of the 114 patients treated, 94 were followed, and the status at the last visit was satisfactory in 39. 31 were treated for a non-gonococcal infection, fourteen for a re-infection, and ten who denied further sexual intercourse were regarded as treatment failures. Five of the latter were observed within 1 week and six within 2 weeks.

SWANSEA/PORT TALBOT SERIES

Of 106 patients treated, 91 were followed, and the status at the last visit was satisfactory in 71. Fourteen were treated for a non-gonococcal infection, four for a re-infection, and two who denied further sexual exposure were regarded as treatment failures (both within 7 days). As in the London/Windsor series no side-effects were noted.

The two series are further compared in Table III.

The initial follow-up was similar in the two groups 85·8 *versus* 82·5 per cent.). The failure rate, judged by a denial of further sexual exposure regardless of the time interval involved, was substantially better in the Swansea/Port Talbot series than in the London/Windsor group.

It would appear, however, from the substantially higher number of re-infections and from the higher incidence of non-gonococcal urethritis in the London/Windsor group, that some at least of the so-called failures in this series were re-infections.

Indeed, while the failure rate in the Welsh series was identical with that based on a denial of further

TABLE III *Comparison of overall results in the two series*

| *Series* | *No. treated* | *No. followed* | *Results* | | | | |
|---|---|---|---|---|---|---|---|
| | | | *Satisfactory* | *Non-gonococcal urethritis* | *Re-infection* | *Failures* | |
| | | | | | | *No.* | *Per cent.* |
| London/Windsor | 114 | 94 | 39 | 31 | 14 | 10 | 10·6 |
| Swansea/Port Talbot | 106 | 91 | 71 | 14 | 4 | 2 | 2·2 |
| Total | 220 | 185 | 110 | 45 | 18 | 12 | 6·5 |

TABLE IV *The two series compared by three methods of assessment*

| *Series* | *No. treated* | *No. followed* | *Failure based on history* | | *Failure based on all recurrences* | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | *Within 1 week* | | *Within 2 weeks* | |
| | | | *No.* | *Per cent.* | *No.* | *Per cent.* | *No.* | *Per cent.* |
| London/Windsor | 114 | 94 | 10 | 10·6 | 5 | 5·3 | 6 | 6·4 |
| Swansea/Port Talbot | 106 | 91 | 2 | 2·2 | 2 | 2·2 | 2 | 2·2 |
| Totals | 220 | 185 | 12 | 6·5 | 7 | 3·8 | 8 | 4·3 |

sexual exposure (*i.e.* 2·2 per cent.), if all recurrences encountered within 1 or 2 weeks were classified as failures regardless of history, the rate for the London series, although remaining higher, would be substantially reduced to 5·3 and 6·4 per cent. (Table IV).

## Summary and conclusions

**(1)** A total of 220 male patients with acute uncomplicated gonorrhoea, 114 at London or Windsor and 106 at Swansea or Port Talbot, have been treated with 2 g. ampicillin plus 1 g. probenecid at a single session.
**(2)** The patients in the two groups showed close similarities as regards age, habits of consorting with strangers, complaints of dysuria, and attendance for follow-up examination. They differed in that substantially more of the Swansea/Port Talbot group were married, non-immigrant, had less recent homosexual experience, less previous venereal disease, and took longer to report to the clinic for treatment.
**(3)** Overall, of the 220 patients treated, 185 were followed and, judged by a denial of further sexual exposure, the failure rate was 6·5 per cent. By this criterion, the failure rate was significantly greater (10·6 per cent.) in the London/Windsor series than in the Swansea/Port Talbot series (2·2 per cent.). When all recurrences within 1 or 2 weeks after treatment were regarded as failures irrespective of history, the failure rate of the Swansea/Port Talbot series (2·2 per cent.) was not reduced but that of the London/Windsor series fell to 5·3 and 6·4 per cent.
**(4)** It is considered likely, therefore, that 40 to 50 per cent. of the suspected failures encountered in the London area were in fact re-infections. But nevertheless, when these had been allowed for, the failure rate in the Swansea/Port Talbot series was still 2·4 to 2·9 times lower than that in the London/Windsor group. This difference is probably related to differences in penicillin (ampicillin) sensitivities in the two areas.
**(5)** The results obtained in Wales with this regime were not dissimilar to those reported from Scandinavia (see Willcox and others, 1973).

## Reference

WILLCOX, R. R., WOODCOCK, K. R., LATTO, D., JOHN, J., REDMOND, A., PARKER, R. B., REES, G. D., and COBBOLD, R. J. C. (1973) *Brit. J. vener. Dis.*, **49**, 263

## Traitement de la gonococcie par une dose buccale unique d'ampicilline plus probénécide. II. Comparaison des résultats à Londres et au Pays de Galles

SOMMAIRE

**(1)** 220 hommes, au total, atteints de gonococcie non compliquée—114 à Londres ou à Windsor et 106 à Swansea ou Port Talbot—furent traités en une seul séance par 2 g d'ampicilline plus 1 g de probénécide.
**(2)** Les malades des deux groupes étaient étroitement similaires en ce qui regarde l'âge, les habitudes de contact avec les étrangers, les plaintes de dysurie et la régularité aux examens de surveillance. Ils se différentiaient substantiellement dans le fait que le groupe Swansea/Port Talbot comprenait des sujets mariés, non émigrants, ayant eu moins de contacts homosexuels récents, moins d'antécédents vénériens et se présentant plus tard au dispensaire pour le traitement.
**(3)** En tout, des 220 malades traités, 185 furent suivis et jugés en tenant compte de leur dénégation de contact sexuel ultérieur; le taux d'échec fut de 6,5 pour cent. Au nom de ces critères, le taux d'échec fut significativement plus grand (10,6 pour cent) dans la série Londres/Windsor que dans le série Swansea/Port Talbot (2,2 pour cent). Lorsque l'on considéra comme échecs toutes les rechutes survenues en une ou deux semaines aprés le traitement sans tenir compte des antécédents, le taux d'échecs dans la série Swansea/Port Talbot (2,2 pour cent) ne fut pas moindre mais tomba à 5,3 et 6,4 pour cent dans la série Londres/Windsor.
**(4)** On considère donc comme probable que 40 à 50 pour cent des échecs supposés dans le région de Londres furent en réalité des réinfections. Cependant, même en l'admettant, le taux d'échecs dans la série Swansea/Port Talbot se montra 2,4–2,9 fois inférieur à ce qu'il fut dans le groupe Londres/Windsor. Cette différence est probablement en relation avec les différences des sensibilités à la pénicilline (ampicilline) dans ces deux régions.
**(5)** Les résultats obtenus au Pays de Galles par cette posologie ressemblèrent à ceux rapportés en Scandinavie (voir Willcox et coll., 1973)